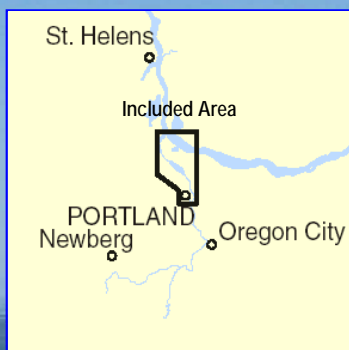


BookletChart™

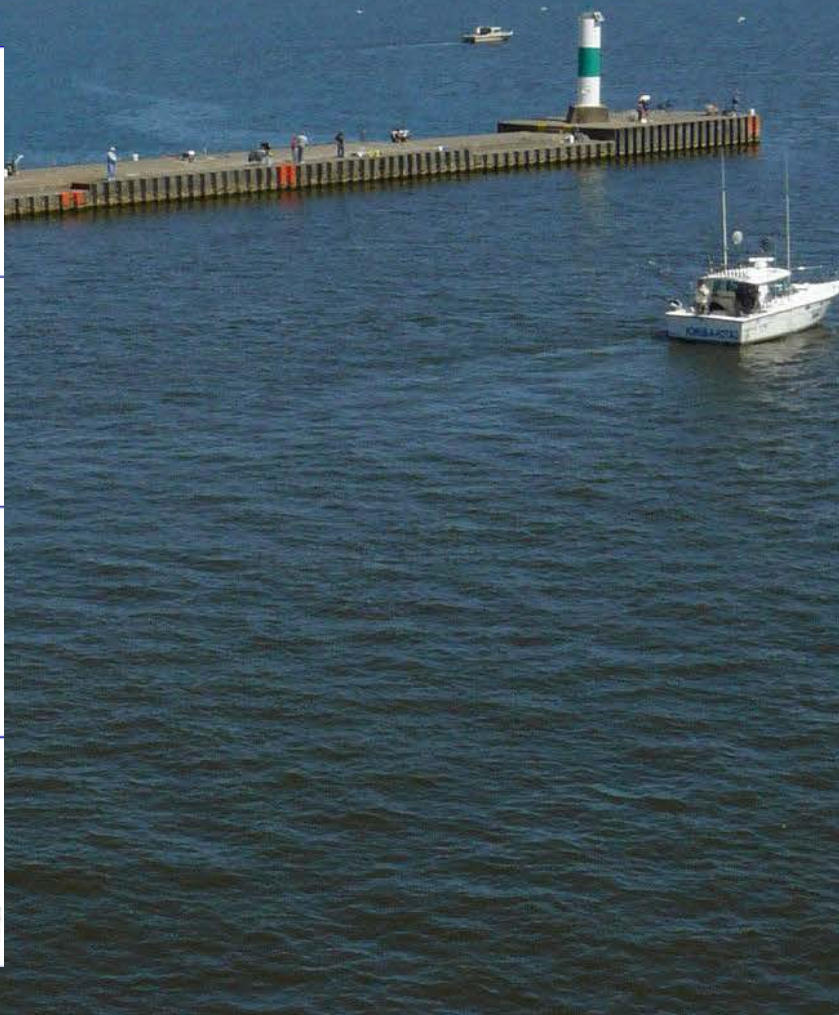
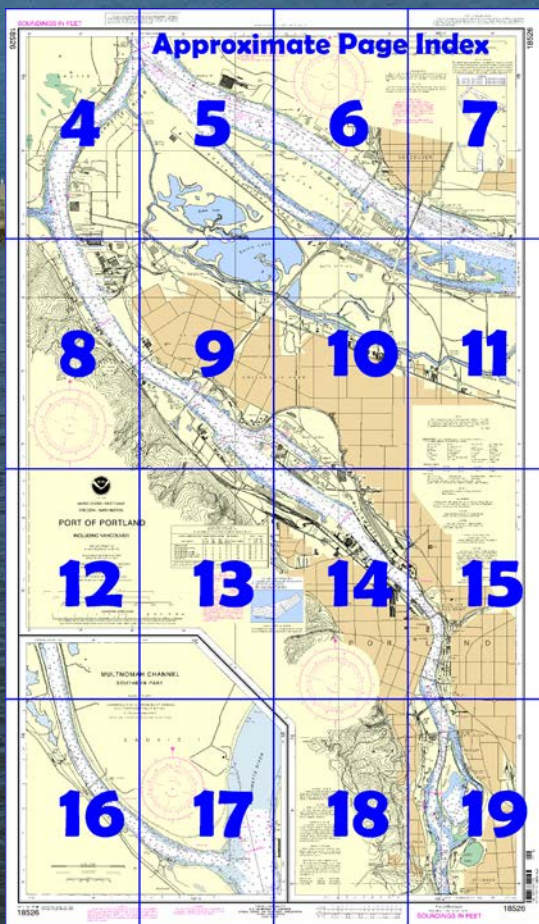
Port of Portland, Including Vancouver NOAA Chart 18526



A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=18526>.



(Selected Excerpts from Coast Pilot)

At Mile 88 (101.2), Columbia River is joined by **Willamette River**, its largest tributary below the Cascade Mountains.

Kelley Point Junction Light

(45°39'11"N., 122°45'46"W.), 39 feet above the water, is shown from a pile structure with a red and green triangular daymark on the end of the dike extending from **Kelley Point** on the E side of the entrance to the river.

Columbia Slough, a narrow back channel roughly parallel to Columbia

River, empties into the Willamette about 0.4 (0.5) mile above its mouth. Least depth in the slough is usually less than 2 feet. A dam has been constructed across the slough about 7.3 miles above the mouth.

In the vicinity of **Post Office Bar Range**, 2 (2.4) miles above the mouth of Willamette River, deep-draft vessels favor the W side of the river, while smaller vessels and tows prefer the E side because of lesser current.

Portland, on Willamette River about 9 (10.4) miles from its mouth, is one of the major ports on the Pacific coast. The port has several deep-draft piers and wharves on both sides of the Willamette River between its junction with the Columbia and Ross Island. In addition there are extensive facilities for small vessels and barges S of Hawthorne Bridge and at North Portland Harbor, S of Hayden Island.

The **Port of Portland** created by the State in 1891, is controlled by a Port Commission and administered by an executive director. The port owns several marine terminals, Port of Portland Ship Repair Yard, and dredges the channel between Broadway and Ross Island Bridges; it also assists the Corps of Engineers with other dredging in the Willamette and Columbia Rivers.

Vessel Arrival Reports.—The Washington State Department of Ecology requires that all tank vessels, and certain cargo and passenger vessels, submit an Advanced Notice of Entry (ANE) Report at least 24 hours prior to entering Washington waters.

A Safety Report must be submitted with an Advance Notice of Entry, or, if the condition occurs after submittal of an ANE the Department must be notified immediately by phone or facsimile of the condition. To inquire or submit vessel information, vessel owners or operators may contact the Washington State Department of Ecology by calling 24 hours, 503-790-4868 (Columbia River and Grays Harbor) or 360-956-8378 (Strait of Juan de Fuca and Puget Sound). Facsimile Safety Reports should be sent to 1-800-664-9184 or 360-407-7288.

Cargo, passenger, fishing and tank vessels are subject to boarding by Washington State Department of Ecology inspectors when in port. Tank vessels are required to have a Tank Vessel Oil Spill Prevention Plan on file with Ecology or must obtain a waiver prior to entering Washington State waters. Washington State also has safe bunkering procedures that must be followed during fuel transfers. For more information contact Ecology by calling 24 hours, 503-790-4868 (Columbia River and Grays Harbor) or 360-956-8378 (Strait of Juan de Fuca and Puget Sound). **To report oil spills call 1-800-258-5990.**

Anchorage.—The anchorage areas that are generally used in the Columbia River are Kelley Point Anchorage, E of Kelley Point and on the SW side of Vancouver Lower Channel and Hayden Island Anchorage, between the N end of Hayden Island and Vancouver Range (See **110.1** and **110.228**, chapter 2, for limits and regulations.) Hayden Island anchorage has two anchor buoys for use by bulk carriers/large vessels. In 2004, an anchor was reported to have been lost in Hayden Island Anchorage in about 45°38'32"N., 122°44'01"W.

A **special anchorage** in the Columbia River is between Tri-Club Island (Sand Island) and Lemon Island about 6.5 miles above the railroad bridge. (See **110.1** and **110.128**, chapter 2, for limits and regulations.)

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Seattle

Commander
13th CG District
Seattle, WA

(206) 220-7001

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.

To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>.

[illegible]

Joins page 8

Joins page 8

~~SCALE 1:20,000~~
Nautical Miles

See Note on page 5.

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

Nautical Miles


See Note on page 5.

4

The image displays three horizontal number lines, each representing a different unit of length. The top line is labeled 'Nautical Miles' and has tick marks at $\frac{1}{2}$ and 0. The middle line is labeled 'Statute Miles' and has tick marks at $\frac{1}{2}$ and 0. The bottom line is labeled 'Yards' and has tick marks at 500, 0, 500, and 1000.

Report all spills of oil and hazardous substances to the Response Center via 1-800-424-8802 (toll free), or to the Coast Guard facility if telephone communication is impossible (153).

Freshets occur annually during the months of May, June, and July, which may cause some shoaling; however, channels are dredged and to project depths as soon thereafter as possible.

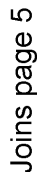
COLUMBIA AND WILLAMETTE RIVERS
Mileage distances along the Columbia and Willamette Rivers are in Statute Miles. Distances along the Columbia River are eastward from the mouth, and along the Willamette River are southward from the junction of the Columbia River and are indicated thus: 

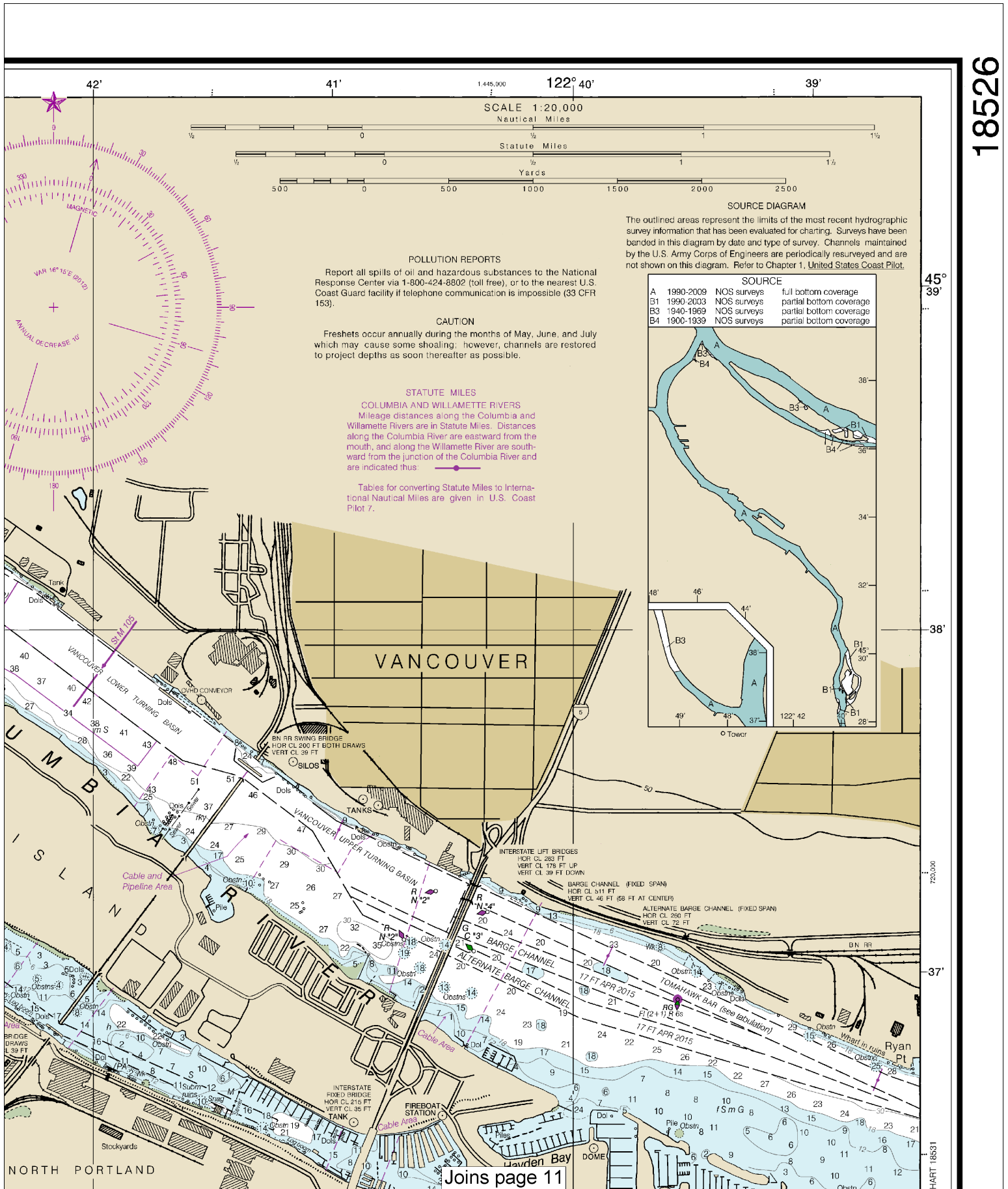
Tables for converting Statute Miles to International Nautical Miles are given in U.S. Coast Pilot 7.

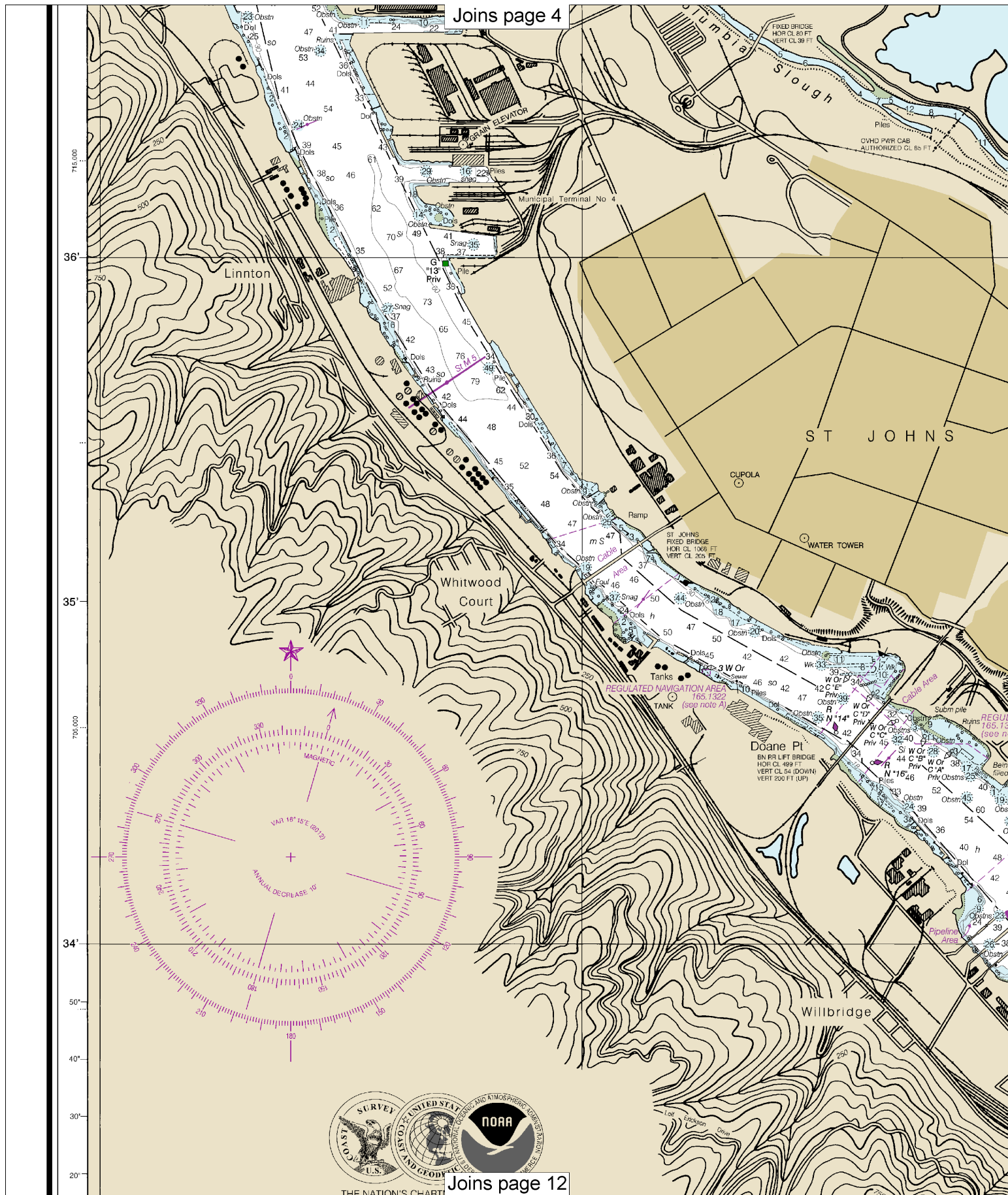
Joins page 6

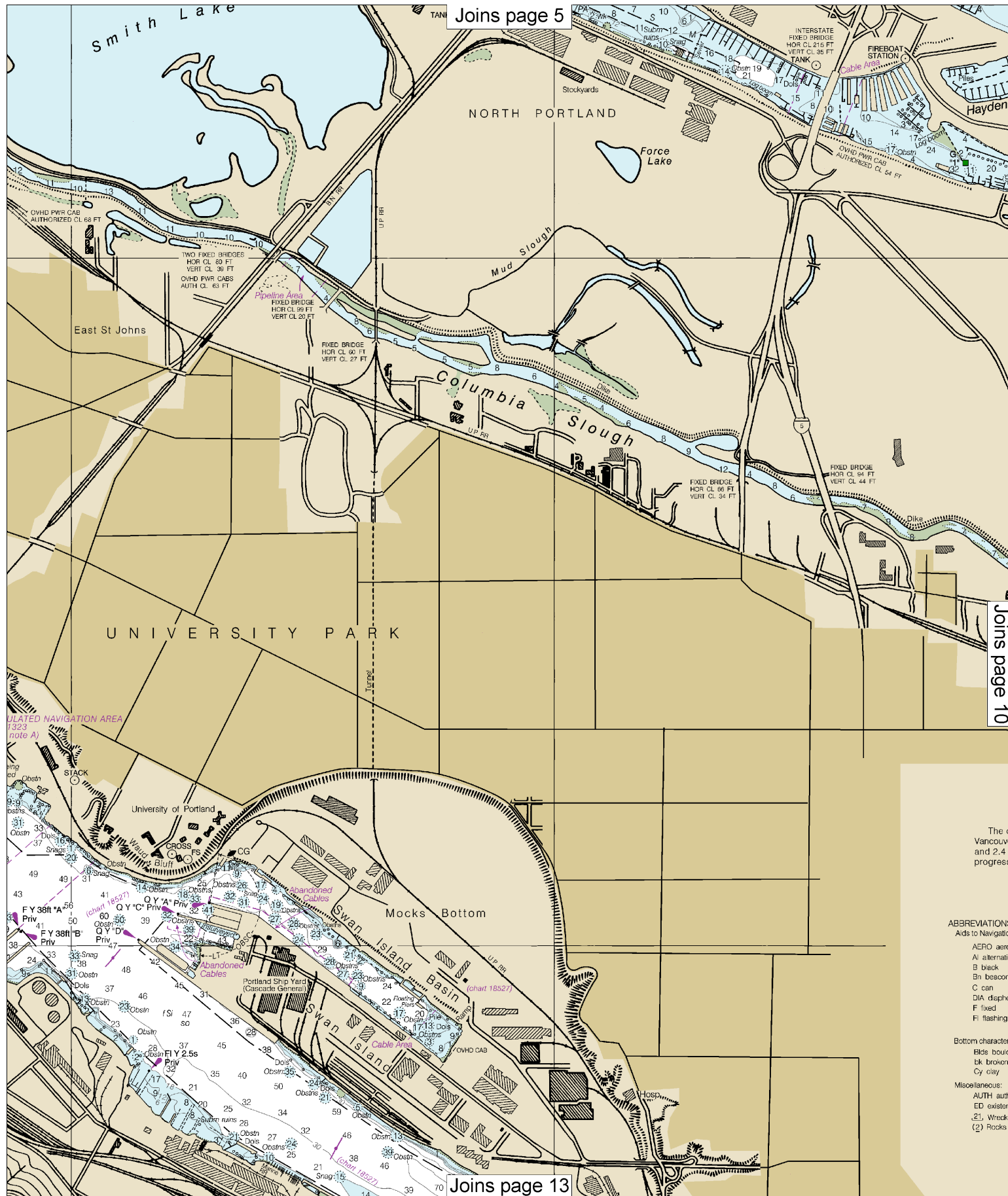
Joins page 9

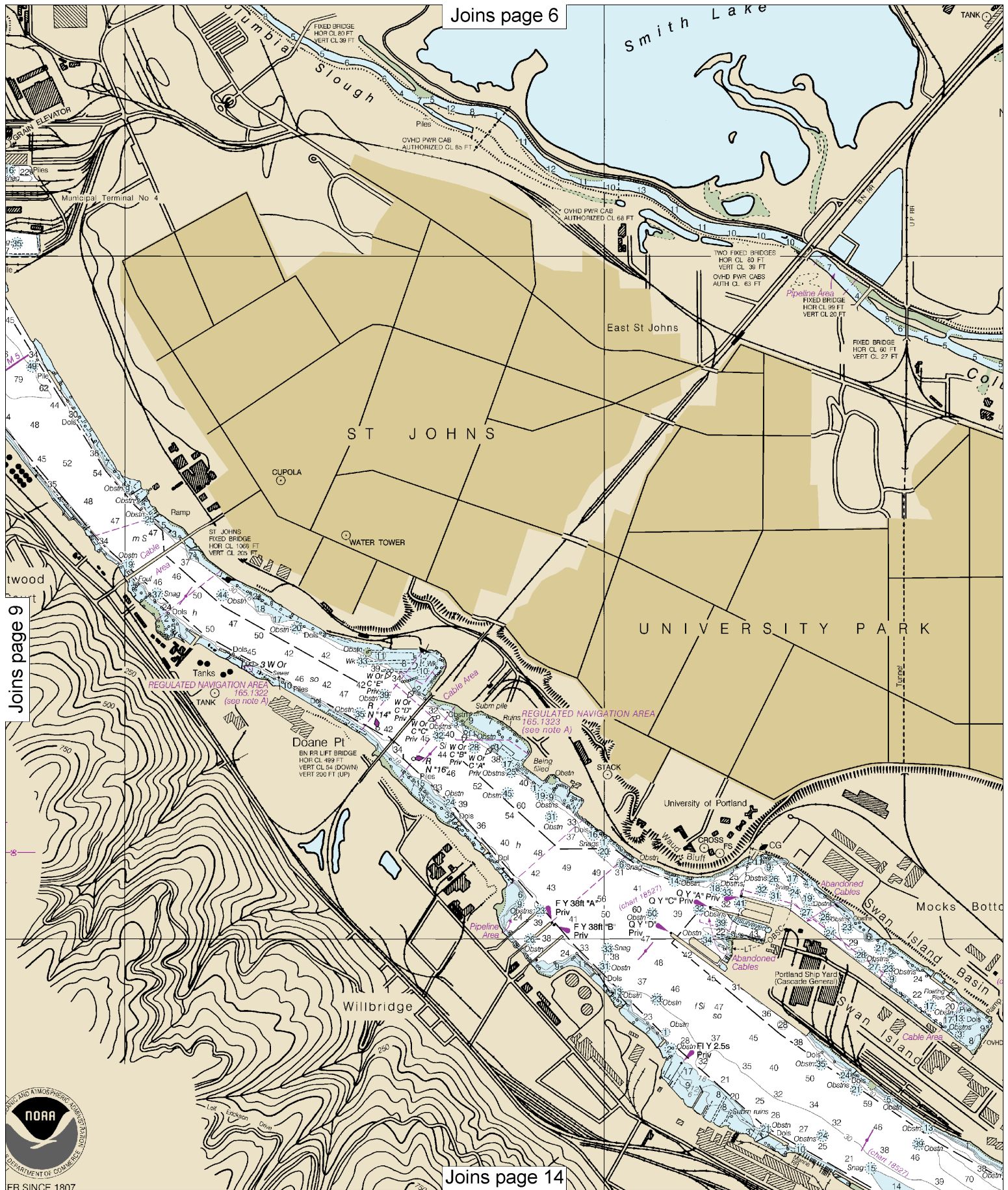
This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:26666. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.











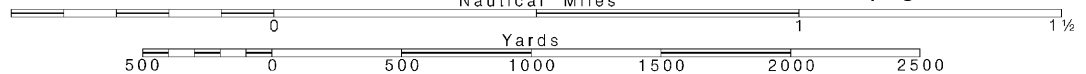
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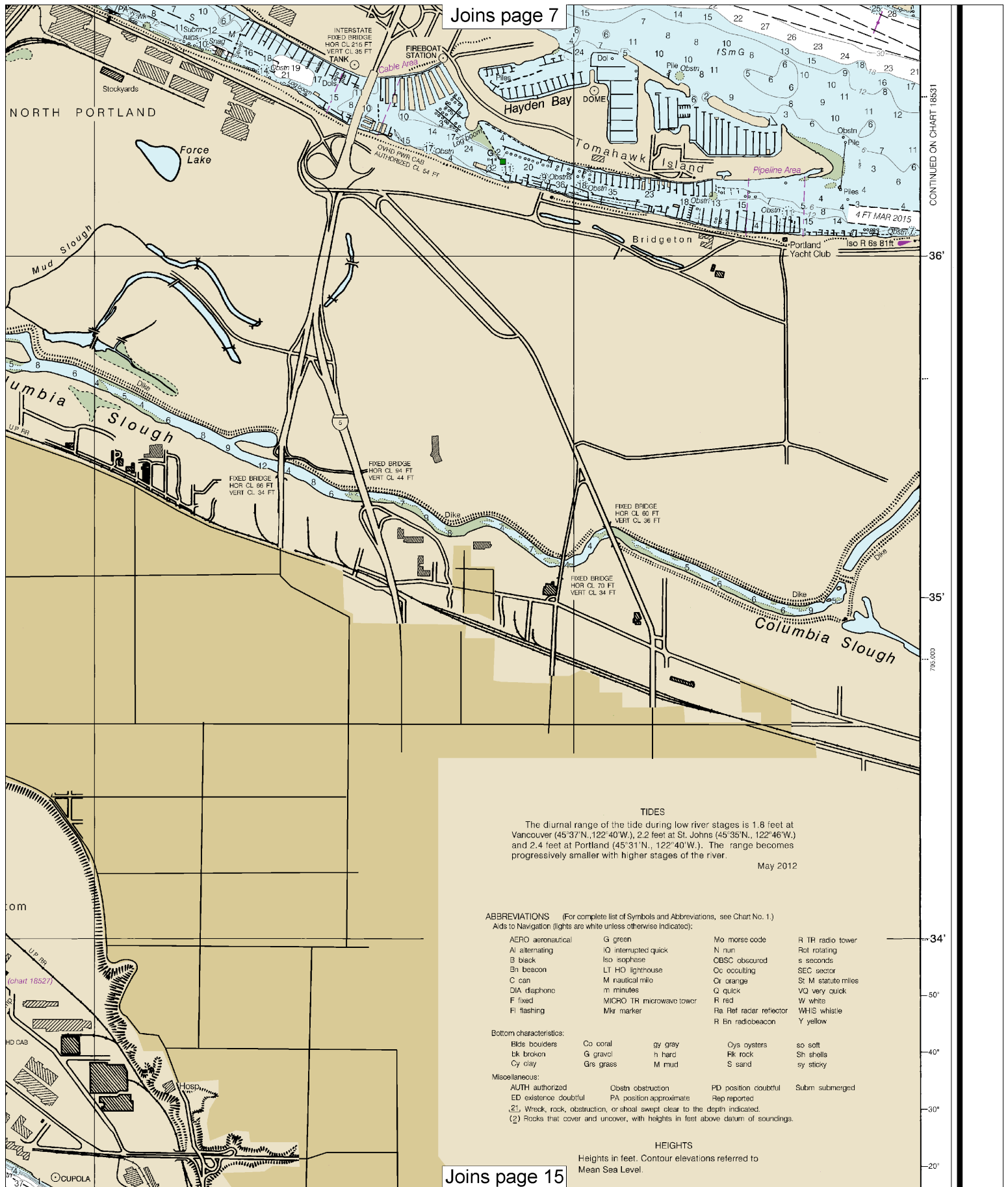
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.





Joins page 7

CONTINUED ON CHART 18531

36'

35'

705.000

34'

50'

40'

30'

20'

TIDES

The diurnal range of the tide during low river stages is 1.8 feet at Vancouver (45°37'N, 122°40'W), 2.2 feet at St. Johns (45°35'N, 122°46'W) and 2.4 feet at Portland (45°31'N, 122°40'W). The range becomes progressively smaller with higher stages of the river.

May 2012

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
A alternating	IO interrupted quick	N nun	Rd rotating
B black	ISO isophase	OBSC obscured	s seconds
Bn beacon	LI HO lighthouse	OC occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphano	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Bks boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shoals
Cy clay	Gr grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

(2) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

HEIGHTS

Heights in feet. Contour elevations referred to Mean Sea Level.

Joins page 15



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - WEST COAST

OREGON - WASHINGTON

PORT OF PORTLAND

INCLUDING VANCOUVER

Mercator Projection
Scale 1:20,000 at Lat 45° 34'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS AND CLEARANCES OF BRIDGES
AND OVERHEAD CABLES IN FEET

AT COLUMBIA RIVER DATUM
(MEAN LOWER LOW WATER DURING LOWEST RIVER STAGES)
Additional information can be obtained at nauticalcharts.noaa.gov.

SCALE 1:20,000

Nautical Miles

Statute Miles

Yards

COLUMBIA RIVER CHANNEL DE MORGAN CHANNEL TO TOMAHAWK			
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - 1880			
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM			
NAME OF CHANNEL	Left Outside Quarter	Left Inside Quarter	Right Inside Quarter
Morgan Channel	45	46	47
Vancouver Lower Channel	46	48	46
Vancouver Range	44	44	44
Vancouver Upper Channel	45	45	43
Vancouver Lower Turning Basin	34	39	34
Vancouver Upper Turning Basin	36	30	25
Mid Channel for Half Project Vls			
	L Outside	Mid Channel	
Tomahawk Bar	15	16	

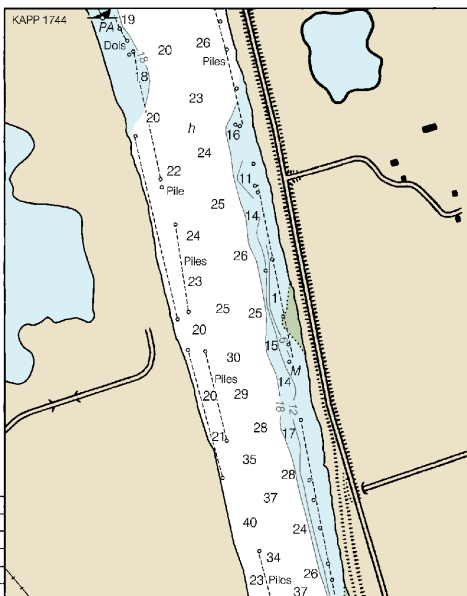
* For Controlling Depth Information, consult the Local Notice to Mariners
District US Army Corps of Engineers website: <http://www.nwp.usace>
Channel status reports

CAUTION
SUBMARINE PIPELINE
Charted submarine
cables and submarine
are shown as:

Pipeline Area

Additional uncharted
submarine cables may
be shown on this chart. Not all submarine
cables are required to be
those that were originally
become exposed. Mar
caution when operating
water comparable to the
pipelines and cables
anchoring, dragging,
Covered wells may
unlighted buoys.

CONTINUED ON CHART 18525



MULTNOMAH CHANNEL SOUTHERN PART

Scale 1:10,000

SOUNDINGS AND CLEARANCES OF BRIDGES
AND OVERHEAD CABLES IN FEET

AT COLUMBIA RIVER DATUM
(MEAN LOWER LOW WATER DURING LOWEST RIVER STAGES)

Joins page 16

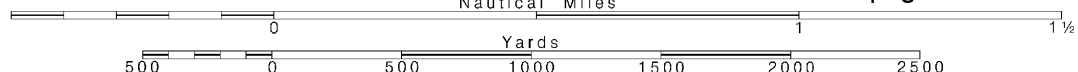
12

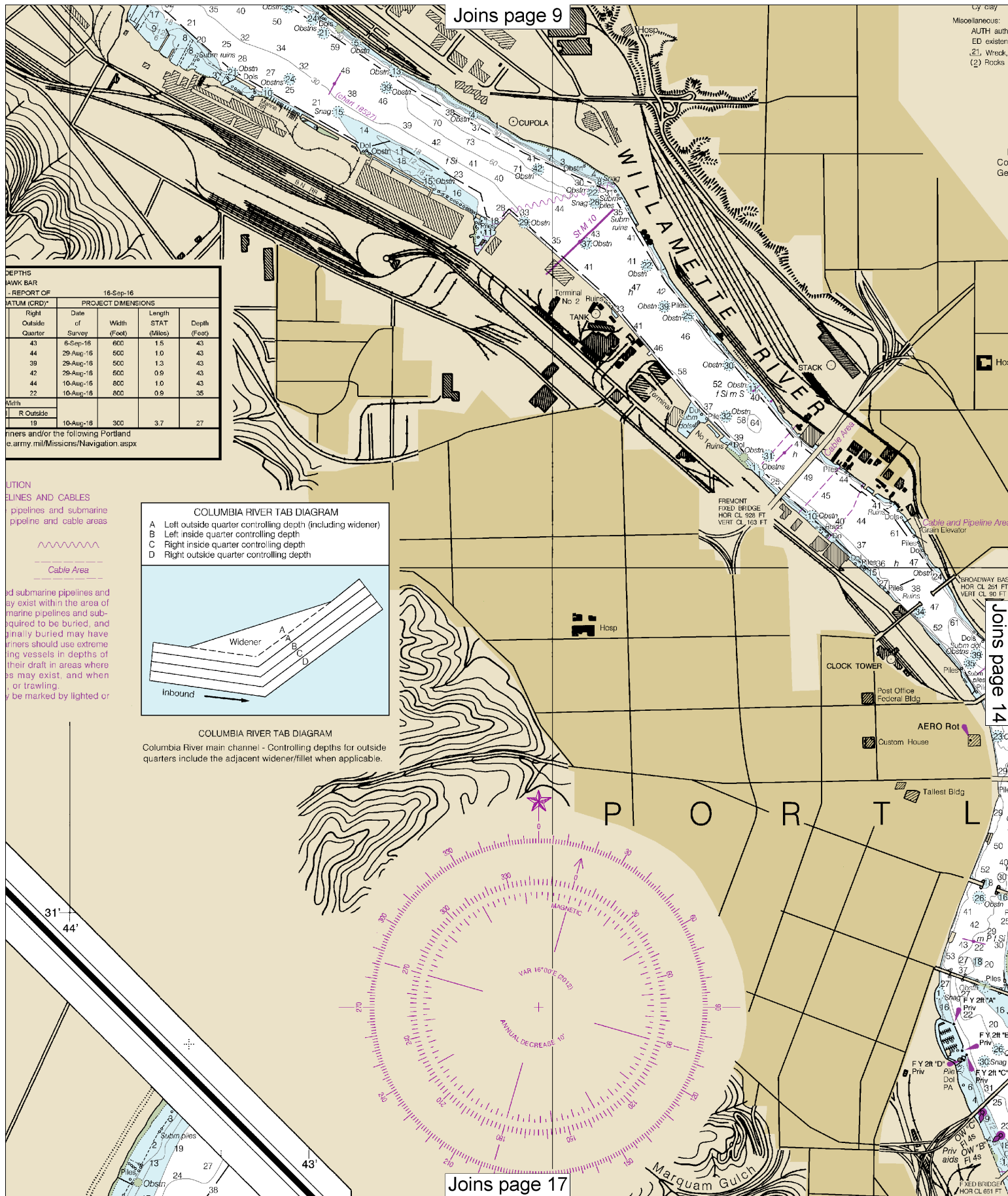
Note: Chart grid
lines are aligned
with true north.

Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.





ORTLAND

NCOUVER

Lat 45° 34'

sum of 1983
stem 1984)

ANCES OF BRIDGES
LES IN FEET

ER DATUM
(LOWEST RIVER STAGES)
d at nauticalcharts.noaa.gov.

SCALE 1:20,000
Nautical Miles

Joins page 13

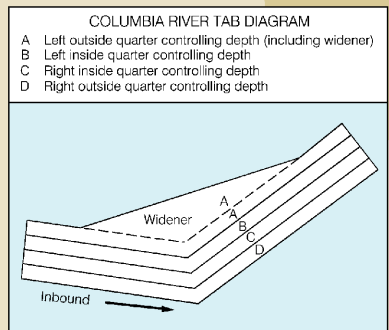
COLUMBIA RIVER CHANNEL DEPTHS MORGAN CHANNEL TO TOMAHAWK BAR									
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF						16-Sep-16			
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD)*						PROJECT DIMENSIONS			
NAME OF CHANNEL	Left Outside Quarter	Left Inside Quarter	Right Inside Quarter	Right Outside Quarter	Date of Survey	Width (Feet)	Length STAT (Miles)	Depth (Feet)	
Morgan Channel	45	46	47	43	6-Sep-16	600	1.5	43	
Vancouver Lower Channel	46	48	46	44	29-Aug-16	500	1.0	43	
Vancouver Range	44	44	44	39	29-Aug-16	500	1.3	43	
Vancouver Upper Channel	45	45	43	42	29-Aug-16	500	0.9	43	
Vancouver Lower Turning Basin	34	39	34	44	10-Aug-16	800	1.0	43	
Vancouver Upper Turning Basin	36	30	25	22	10-Aug-16	800	0.8	36	
Mid Channel for Half Project Width						10-Aug-16	300		27
	L Outside		M Channel		R Outside				
Tomahawk Bar	15		16		19				

* For Controlling Depth Information, consult the Local Notice to Mariners and/or the following Portland District US Army Corps of Engineers website: <http://www.nwp.usace.army.mil/Missions/Navigation.aspx>
Channel status reports

CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered vessels may be marked by lighted or unlighted buoys.



COLUMBIA RIVER TAB DIAGRAM

Columbia River main channel - Controlling depths for outside quarters include the adjacent widener/fillet when applicable.

ULTNOMAH CHANNEL

SOUTHERN PART

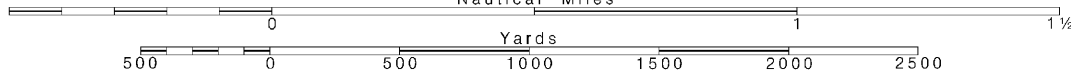
Scale 1:10,000

SOUNDINGS AND CLEARANCES OF BRIDGES
AND OVERHEAD CABLES IN FEET

AT COLUMBIA RIVER DATUM

(MEAN LOWER LOW WATER DURING LOWEST RIVER STAGES)

Joins page 18



Joins page 11

Gr: grass M: mud S: sand sy: stony
 AUTH: authorized OB: obstruction PD: position doubtful Subm: submerged
 ED: existence doubtful PA: position approximate Rep: reported
 (1) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
 (2) Rocks that cover and uncover, with heights in feet above datum of soundings.

HEIGHTS
 Heights in feet. Contour elevations referred to Mean Sea Level.

AUTHORITIES
 Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey and U. S. Coast Guard.

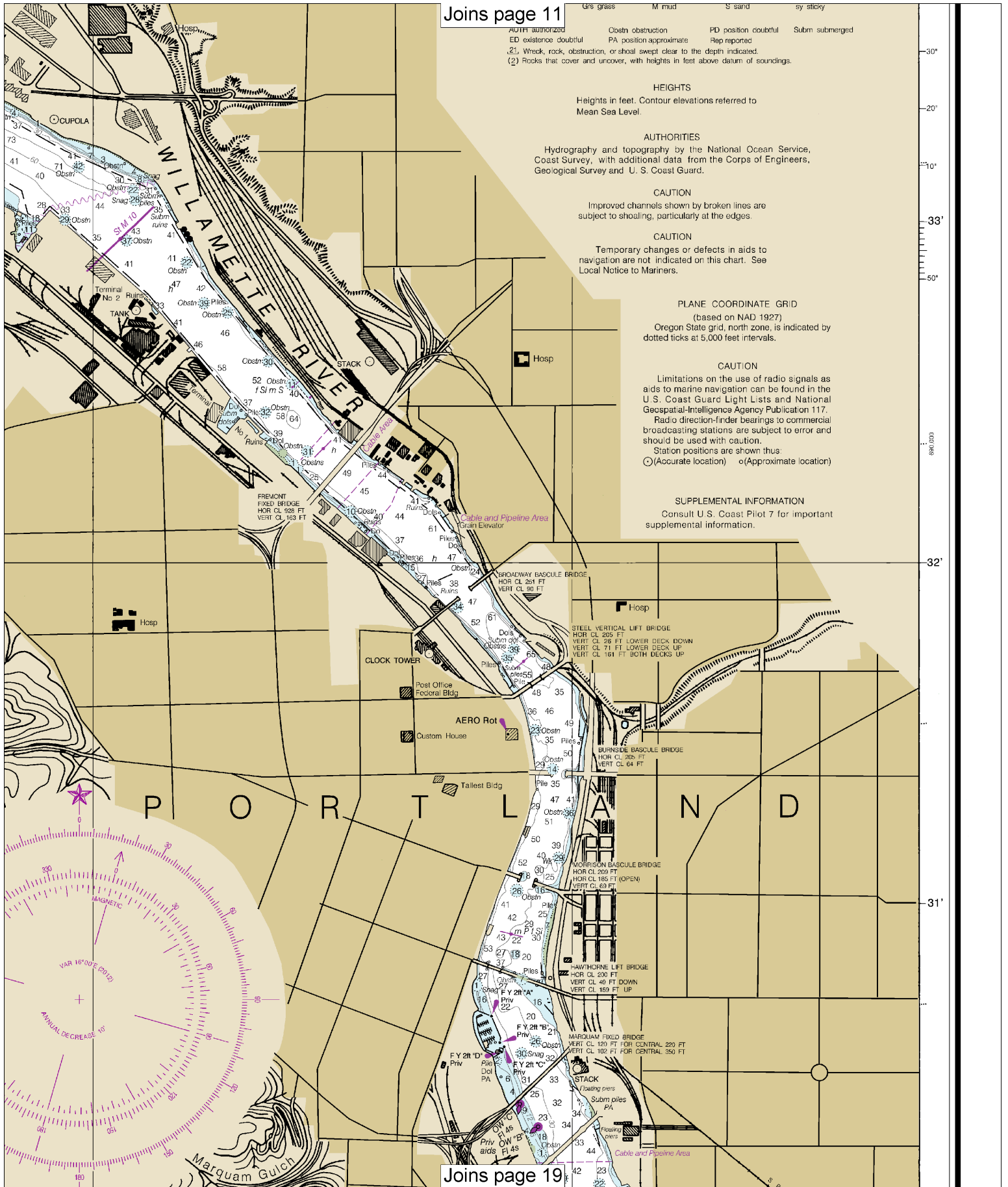
CAUTION
 Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION
 Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

PLANE COORDINATE GRID
 (based on NAD 1927)
 Oregon State grid, north zone, is indicated by dotted ticks at 5,000 feet intervals.

CAUTION
 Limitations on the use of radio signals as aids to marine navigation can be found in the U. S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
 Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
 Station positions are shown thus:
 (O) (Accurate location) (o) (Approximate location)

SUPPLEMENTAL INFORMATION
 Consult U. S. Coast Pilot 7 for important supplemental information.



Joins page 19

Joins page 12

SOUNDINGS AND CLEARANCES OF BRIDGES AND OVERHEAD CABLES IN FEET

AT COLUMBIA RIVER DATUM

(MEAN LOWER LOW WATER DURING LOWEST RIVER STAGES)

S A U V I E

45° 38'

725,000

50'

40'

30'

20'

10'

0'

720,000

37'

SCALE 1:10,000

Half Nautical Mile

Half Statute Mile

Yards

100 0 100 200 300 400 500

1,408,000

49'

50'

40'

30'

20'

10'

122° 48'

Iso E

Miller

Harborton

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

18526

60th Ed., Jun. 2012. Last Correction: 12/5/2016. Cleared through:
LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016), CHS: 1116 (11/25/2016)

16

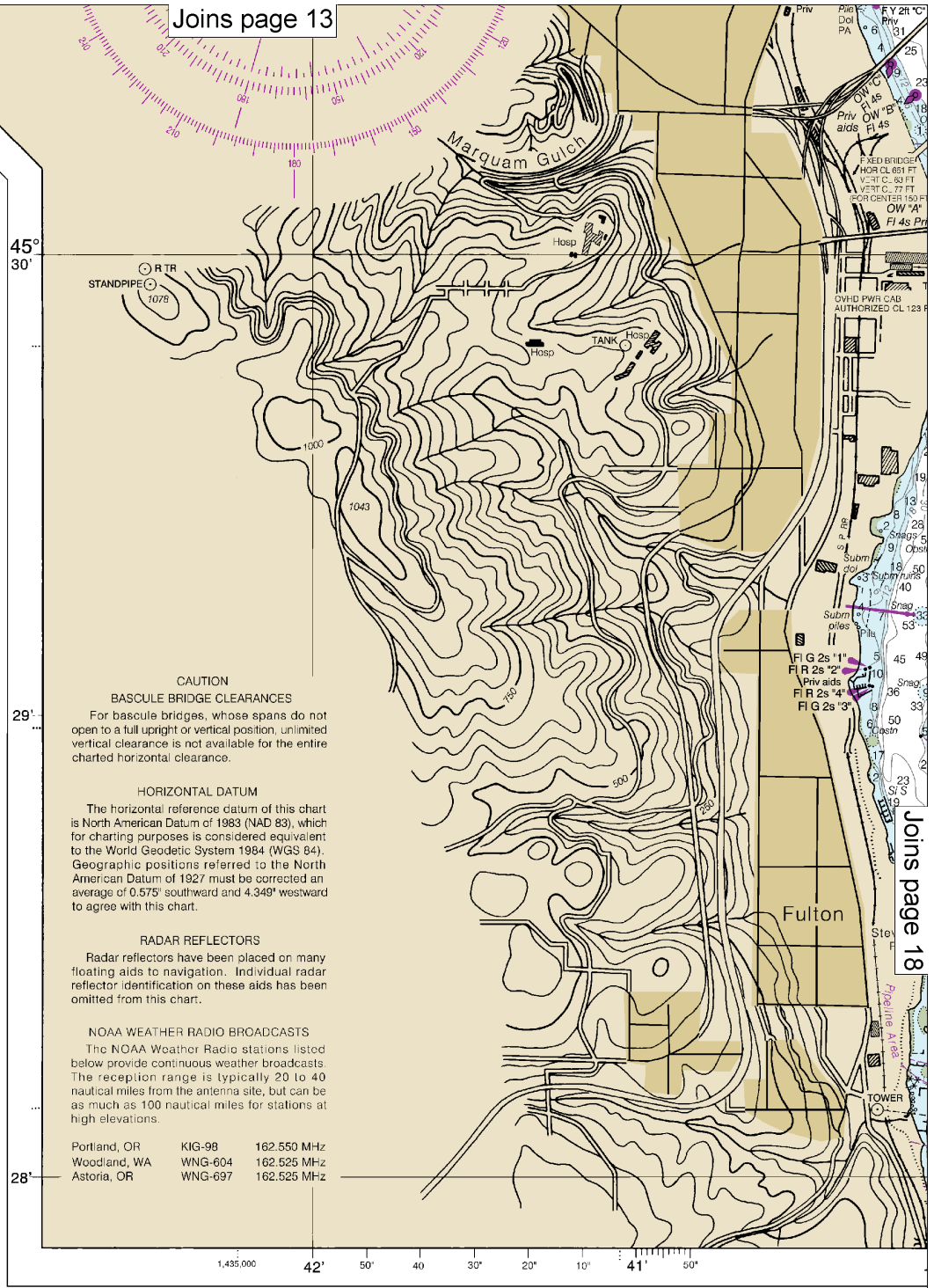
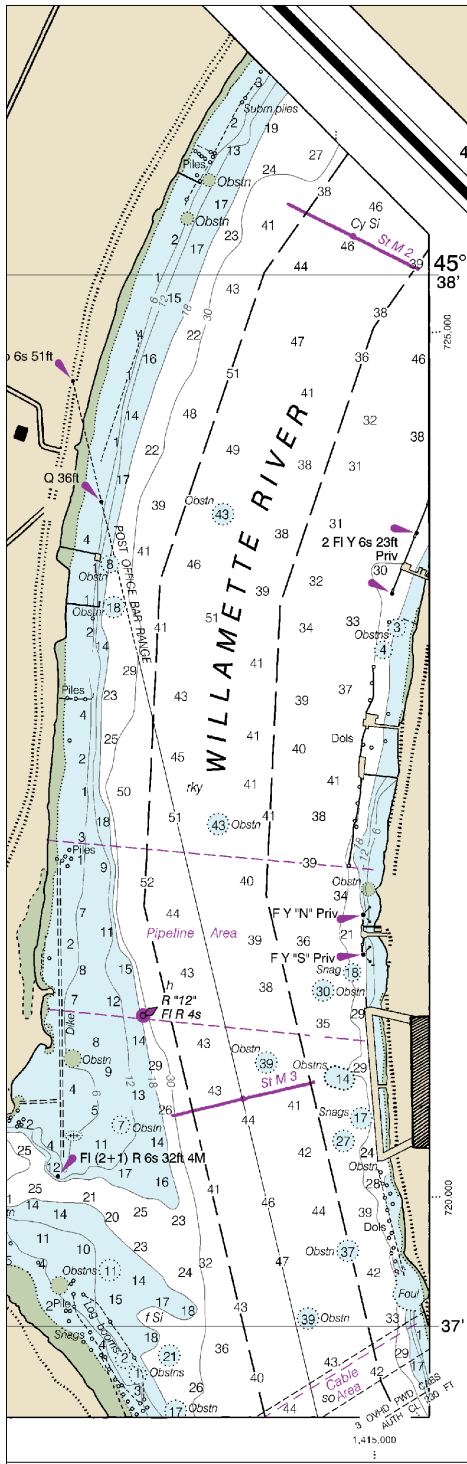
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:20,000

See Note on page 5.

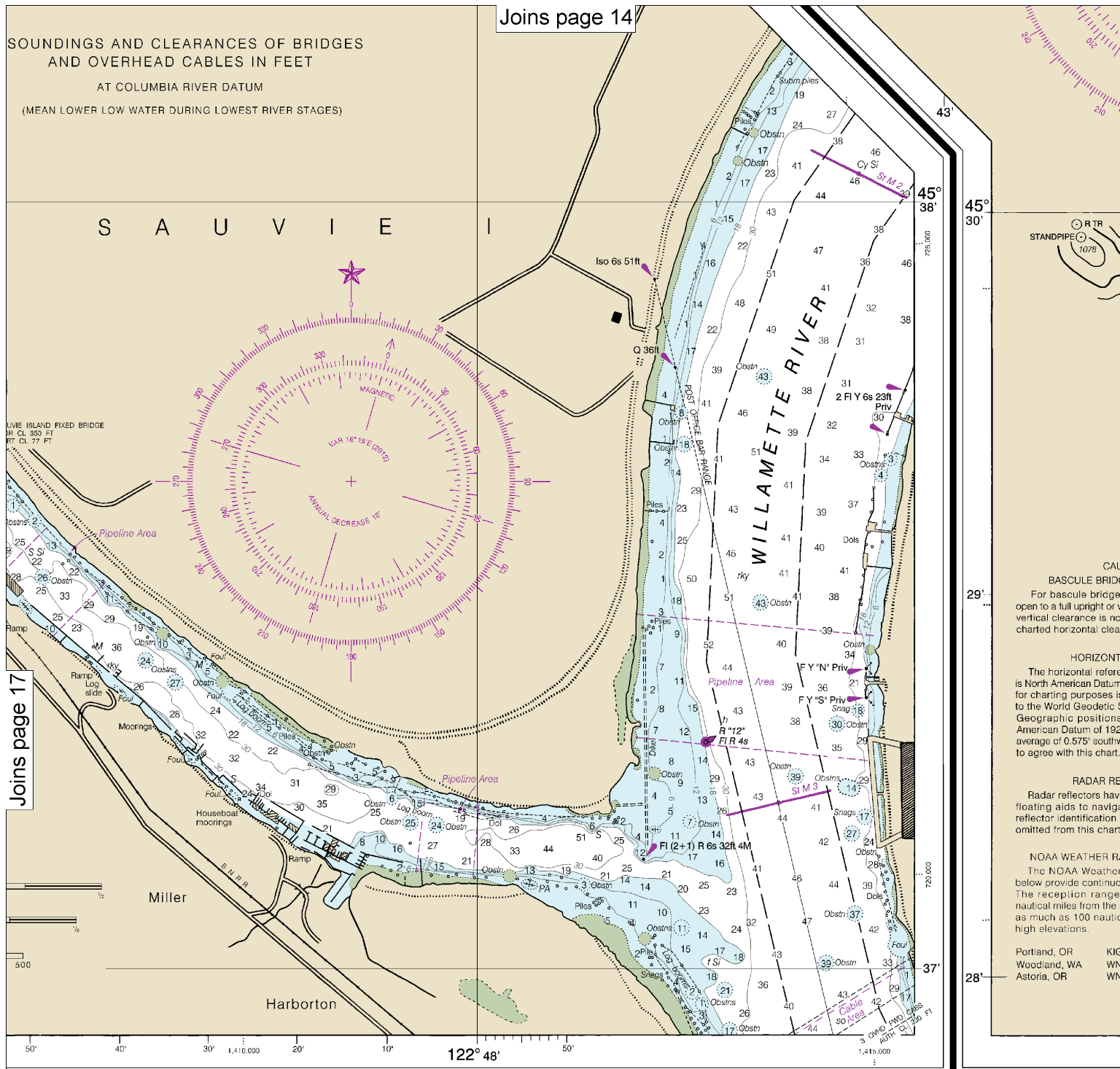
Nautical Miles
Yards
500 0 500 1000 1500 2000 2500



Published at Washington, D.C.
 U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE
 COAST SURVEY

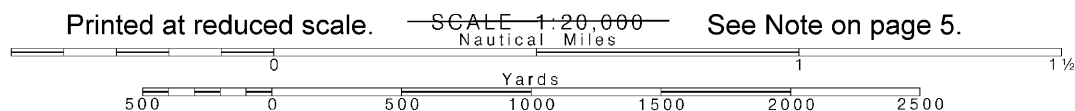
FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

SOUND
 SOUN



18

Note: Chart grid lines are aligned with true north.





VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Interactive chart catalog	—	http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



— For the latest news from Coast Survey, follow **@NOAAcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.